

METHODS OF FORMING A CHEMICAL CASING

CROSS-REFERENCE TO RELATED APPLICATION

This is a Divisional of Application
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BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

[0001] The present invention relates to methods of forming a chemical casing in a well bore penetrating a weak unconsolidated zone or formation.

2. DESCRIPTION OF THE PRIOR ART

[0002] Rotary drilling methods are commonly utilized in the drilling of oil and gas wells. That is, the well bore which extends from the surface into one or more subterranean oil and/or gas producing formations is drilled by a rotary drilling rig on the surface which rotates a drill bit attached to a string of drill pipe. The drill bit includes rotatable cutting surfaces so that when the drill bit is rotated by the drill string against subterranean strata under pressure a bore hole is produced.

[0003] A drilling fluid is circulated downwardly through the drill string, through the drill bit and upwardly in the annulus between the walls of the well bore and the drill string. The drilling fluid functions to maintain hydrostatic pressure on formations penetrated by the well bore and to remove cuttings from the well bore. As the drilling fluid is circulated, a filter cake of solids from the drilling fluid forms on the walls of the well bore. The filter cake build-up is a result of initial fluid loss into permeable formations